Community Council Action Items

1. Gather additional information and public reaction through the Telecommunications Infrastructure Needs Assessment (TINA) process, and from that effort develop recommendations for specific actions that would further the development of an enterprise-wide, standards-based deployment of a public-private statewide communications network infrastructure. These actions may include developing a specific set of communication and network requirements, requested services and fiscal boundaries; issuing an RFP consistent with the TINA findings and using the State's aggregated purchasing power to serve as an "anchor tenant" to stimulate information technology and economic development throughout the state; and establishing flat-rate, distance-insensitive pricing for advanced technology and contracted services while providing an incentive for private sector competition and investment in the state's information technology infrastructure.

Sponsors: NITC staff, NITC Technical Panel, Education Council, Community Council, State Government Council, and Division of Communication.

2. Conduct a study to evaluate the infrastructure and economic requirements to deliver telehealth services in Nebraska.

Sponsors: NITC, Community Council, and Telehealth Subcommittee

- 3. Review and evaluate policy implications for state and local governments of issues such as inclusion of telecommunications expenditures as capital construction; use of debt financing to establish telecommunications infrastructure; exemption of telecommunications infrastructure from local lid limits; standardizing cost centers for local telecommunications budget and expenditures; use of inter-local agreements to promote cost sharing; and identifying other financing opportunities.

 Sponsors: NITC staff, NITC Technical Panel, Community Council, Education Council, NIDCAC
- 4. Determine regulatory barriers to IT development and universal service within the state and develop strategies to address these barriers in partnership with the Administration, the Legislature, the Public Service Commission and other appropriate entities.

Sponsors: NITC staff, Community Council, Education Council, State Government Council

5. Work with insurance companies to broaden their policies to include telemedicine patient encounters as reimbursable services.

Sponsors: Community Council and the Telehealth Subcommittee

- 6. Develop a coordinated plan for addressing the information technology needs of Nebraska's rural communities, including developing a database of information technology development resources; performing a gap analysis of additional, needed resources; and developing strategies for focusing and addressing rural community needs. *Sponsors: NITC staff, Community Council, NIDCAC*
- 7. Review and/or establish training curriculum for coursework required to develop expertise in network design, LAN management, systems support, application development, or other educational requirements necessary to develop these strategies at the high school, community college, or college and university systems.

8. Develop, within the NITC website, a clearinghouse service to provide convenient access to information about information technology.

Sponsors: NITC staff, NITC Technical Panel, <u>Community Council</u>, Education Council, State Government Council

9. Develop a Web-accessible database of public access sites in Nebraska as a component of the Information Clearinghouse.

Sponsors: <u>Community Council</u> and Nebraska Library Commission

10. Develop guidelines for core local government, multi-purpose geospatial datasets, and model interlocal agreements for the cooperative development, maintenance, and funding of geographic information systems core data.

Sponsors: NITC Technical Panel, Community Council, GIS Steering Committee, NIDCAC

11. Evaluate existing funding sources and incorporate enterprise principles that address life-cycle funding needs.

Sponsors: NITC staff, Community Council, Education Council and State Government Council

- 12. Conduct a study to determine the need for and merits of establishing a funding mechanism dedicated to facilitating collaborative intergovernmental efforts to develop priority statewide geospatial databases. *Sponsors: Community Council, GIS Steering Committee, NIDCAC*
- 13. Develop policies and procedures for consolidating intergovernmental services on central servers, including digital certificates, verification, authorization, e-mail services, and other appropriate database applications.

Sponsors: Community Council, NIDCAC

Gather additional information and public reaction through the Telecommunications Infrastructure Needs Assessment (TINA) process, and from that effort develop recommendations for specific actions that would further the development of an enterprise-wide, standards-based deployment of a public-private statewide communications network infrastructure. These actions may include developing a specific set of communication and network requirements, requested services and fiscal boundaries; issuing an RFP consistent with the TINA findings and using the State's aggregated purchasing power to serve as an "anchor tenant" to stimulate information technology and economic development throughout the state; and establishing flat-rate, distance-insensitive pricing for advanced technology and contracted services while providing an incentive for private sector competition and investment in the state's information technology infrastructure.

Sponsoring Entities:

NITC Technical Panel, Community Council, Education Council, State Government Council, Division of Communications

Goals and Objectives:

- To reduce voice, data and video communication costs of state government;
- To position the state to take advantage of rapidly emerging communications technologies;
- To provide an information infrastructure to support governmental, educational and economic development initiatives throughout the state;
- To establish opportunities for use by other government, education, political subdivision and non-profit units;
- To efficiently leverage the State's purchasing power to create economic development incentives for rural and disadvantaged users:
- development incentives for rural and disadvantaged users;
 To reduce the rate disparity for network and service access throughout the state.

Justification / Rationale:

As the largest consumer of communication services in the state, government is in a unique position to influence the development of the state's communications infrastructure through innovative private-public partnerships. By seizing an opportunity to cease the use of numerous, limited-capacity, single agency data networks by merging requirements and migrating users to an integrated, high-speed network, the State can promote a manageable, enterprise solution for users throughout the state, including remote rural communities.

This approach envisions using the competitive marketplace instead of massive public expenditures to acquire the communications bandwidth necessary to conduct state, educational and essential public services. The state, as an "anchor tenant", proposes to purchase the bandwidth necessary to meet these critical needs without having to "build" and support the network. It is envisioned the contract will result in the design and deployment of a modern, digital communications infrastructure that will interconnect agencies, educational institutions, libraries, local government, eligible healthcare institutions and other political subdivisions.

With multiple access points in each county, a connection to critical services such as mainframe applications, e-mail, Internet and other information services is available regardless of distance and past configurations of telecommunication services. Such aggregation of demand also enables the state to economically incorporate communications intensive technologies, such as interactive video-conferencing, large file transfers, image transmission, GIS data dissemination, and electronic commerce applications into routine service delivery strategies.

These initiatives will ensure that the state will not enter the business of building an infrastructure, but rather utilize the services provided by private vendors and provide incentives for further information technology development. This approach will benefit not only state government and local communities but ultimately individual citizens because the infrastructure will be owned and managed by the vendors.

Work Plan:

| Tasks | Timeline |
|--|--------------|
| Define technical specifications and service requirements | 4 months |
| Develop RFP to implement TINA recommendations | 2 months |
| Phase 1: Implement core backbone network | 12-18 months |
| Phase 2: Implement connectivity to all counties | TBD |
| Phase 3: End site access with constant bit rate and variable bit rate connectivity, based on standard pricing structures that are distance insensitive | TBD |
| Phase 4: Consolidation of existing networks and applications to the new "statewide" network | TBD |

Required Resources:

NITC Technical Panel to work with DOC officials on technical specifications and service requirements. DOC officials to develop RFP, administer bidding and award process, and oversee implementation and development of the network.

Estimated Cost:

Each phase of the implementation will have differing cost components depending on the magnitude of implementation. Current fiscal year costs will include two temporary positions in DOC to be funded from savings negotiated on the new lease for satellite/transponder space (recommended by the Governor for FY2001 budget).

Conduct a study to evaluate the infrastructure and economic requirements to deliver telehealth services in Nebraska

Sponsoring Entities:

NITC, Community Council, and Telehealth Subcommittee

Goals and Objectives:

This study will examine the role that telehealth services might play in addressing medical needs of Nebraskans, particularly in rural areas. Deliverables from the study would address infrastructure and operational requirements, as well an economic evaluation of providing telehealth services on a broad scale in Nebraska. The study may include reports on: 1) community needs, 2) the potentially conflicting incentives, costs, and benefits to different interested parties, 3) the current geographic distribution of resources; 4) an estimate of infrastructure and operational costs; and 5) a methodology for conducting ongoing impact assessment once such a system has been implemented. The information obtained in the context of this study can be used by planners, in conjunction with current information on costs, to devise multi-year plans for a stepwise, statewide implementation of telehealth technology and applications.

Justification / Rationale:

Telehealth services have the potential to improve access to health services for all Nebraskans. However, the cost of equipment and telecommunications services, the low population density of areas served, and conflicting interest of health care providers and organizations are impeding the expansion of telehealth services. In order to provide services across the state, careful assessment and planning are essential.

Work Plan:

| Tasks (Suggested) | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 |
|-------------------------------------|----|-----------|----|----|----|----|----|----|----|
| Initial meeting | • | • | | | | | | | |
| Design of instruments | • | • | | | | | | | |
| Training of interviewer | | | • | | | | | | |
| Collection of health | | | • | • | • | | | | |
| department/hospital data | | | | | | | | | |
| Interviewing | | | | • | • | | | | |
| Survey administration | | | • | • | • | | | | |
| Transcription of interviews | | | | • | • | | | | |
| Preparation of qualitative database | | | | | • | • | • | | |
| Analysis of qualitative interview | | | • | • | | | | | |
| data | | | | | | | | | |
| Preparation of geographic | | | | | • | • | | | |
| information database | | | | | | | | | |
| Analysis of geographic | | | | | • | | | | |
| information | | | | | | | | | |
| Preparation of quantitative | | | | | | • | | | |
| database | | | | | | | | | |
| Analysis of quantitative (survey) | | | | | | | • | • | |
| data | | | | | | | | | |
| Synthesis of findings | | | | | | | | • | • |
| Preparation of final report | | | | | | | | • | • |

Required Resources:

Design of the survey instrument and study will be performed using resources from the University of Nebraska, in consultation with members of the Community Council and Telehealth Subcommittee.

Estimated Cost:

Supported by the University of Nebraska.

Review and evaluate policy implications for state and local governments of issues such as inclusion of telecommunications expenditures as capital construction; use of debt financing to establish telecommunications infrastructure; exemption of telecommunications infrastructure from local lid limits; standardizing cost centers for local telecommunications budget and expenditures; use of inter-local agreements to promote cost sharing; and identifying other financing opportunities.

Sponsoring Entities:

NITC staff, NITC Technical Panel, Community Council, Education Council, Nebraska Intergovernmental Data Communications Advisory Council (NIDCAC)

Goals and Objectives:

To evaluate proper funding for telecommunications infrastructure in local government by:

- Evaluating the current process of funding the cost of IT infrastructure investments, and identifying shortcomings.
- Reviewing alternative funding mechanisms and determining the appropriate use for these alternatives.
- Evaluating policy implications of exempting cost of IT infrastructure from local lid limits and making recommendations to the Community Council.
- Reviewing budget-reporting requirements, and evaluating appropriate budget and accounting codes in order to report costs and expenditures.
- Examining the use of inter-local agreements to share the costs of investments undertaken and equipment owned by the community among the participating members.

Justification / Rationale:

One obstacle to community investment in IT infrastructure is funding. This project would allow the NITC Community Council to evaluate the current funding practices and make recommendations for changes if required. The project would promote cooperative funding of community IT infrastructure among the participants.

Work Plan:

| Actions | Timeline |
|---|----------|
| Review current budget practices and identify barriers and opportunities | 1 Month |
| Review feasibility, costs, benefits and public polity implications of long term financing for IT infrastructure investments | 1 Month |
| Evaluate use of inter-local agreements as method to allocate community costs | 2 Weeks |
| Make recommendations to the Community Council | 1 Month |

Required Resources:

Community Council and NIDCAC staff resources; committee membership of local officials and state agency including, but not limited to Auditor, DAS Accounting Services, and executive and legislative policy staff

Estimated Cost:

\$1,000 for cost of travel for remote committee members, meetings, and publications.

Determine regulatory barriers to IT development and universal service within the state and develop strategies to address these barriers in partnership with the Administration, the Legislature, the Public Service Commission, and other appropriate entities.

Sponsoring Entities:

NITC staff, Community Council, Education Council, State Government Council

Goals and Objectives:

- Foster a political and regulatory environment conducive to IT development.
- Ensure that all Nebraskans have access to quality telecommunications services at reasonable and affordable rates, regardless of geographic location.
- Recommend and implement policies that ensure the preservation and advancement of universal service.
- Work within the Education Council and Community Council to recommend and implement policies and procedures that will maximize the state's return on federal USF funding.

Justification / Rationale:

While more Americans are connected to the Internet and other telecommunications services than ever before, a persistent digital divide exists between the information rich and the information poor. Data on disparate telecommunications access and use is published in *Falling through the Net: Defining the Digital Divide,* the July 1999 report issued by the U. S. Dept. of Commerce, National Telecommunications and Information Administration (NTIA). The report can be downloaded at http://www.ntia.doc.gov. Among the most significant disparities reported by the NTIA is that, regardless of income level, Americans living in rural areas are lagging behind in Internet access.

Since the passage of the Communications Act of 1934, it has been a major public objective that all Americans, regardless of where they live, have access to quality local phone service at reasonable and affordable rates. The Telecommunications Act of 1996 reaffirmed this goal by establishing policies for the "preservation and advancement of Universal Service"

Until 1996, the Universal Service Fund (USF) compensated telecommunications companies that provided service to both low-income communities as well as rural areas where the cost of service was high. In the Act of 1996, the mandate was expanded to include support for schools, libraries and rural health care providers.

The USF is generated through contributions from telecommunications providers, including local and long-distance phone companies, wireless and paging companies, and pay phone providers. While consumers benefit from the USF, only companies that provide service may draw money directly out of the fund, which defrays the cost of delivering discounted service to consumers.

Recent FCC decisions on the disbursement of USF monies have raised serious questions about the future of universal service and the affordability of new telecommunications services, like the Internet, for rural, high-cost customers.

Federal and State USF formulas, as well as regulatory issues such as cross-LATA surcharges, are commonly identified as potential barriers to eliminating the prospect of a widening digital divide between rural and urban Nebraskans.

Work Plan:

| Actions | Timeline |
|--|-------------------------|
| Direct NITC staff to cooperate with the Public Service Commission and other appropriate entities in preparing recommendations regarding universal service policy development and strategies to overcome other regulatory price barriers for review and inclusion in the Statewide Technology Plan. | Begins February 2000 |
| Develop and deliver a resolution to the FCC regarding Universal Service fund pricing models and distribution. | January 2000 |
| Recommend that the NITC Chairman coordinate USF policy on behalf of the State and NITC with the FCC, the Public Service Commission, the State's Congressional delegation, Congressional and Legislative oversight committees, the Western Governor's Association and other appropriate political bodies; and to report to the Governor, the Legislature and the NITC on pending and future federal actions that impact rural, high-cost service areas. | Begins February 2000 |
| Direct Education Council and Community Council to research and identify barriers and bureaucratic issues regarding USF applications, and to develop policies, procedures and recommendations for increasing the amount of federal funding received by eligible institutions in the state. | Begins February 2000 |

Required Resources:

Staff to provide support to coordinate meetings, information, and actions.

Estimated Cost: None

Action: Work with insurance companies to broaden their policies to include telemedicine

patient encounters as reimbursable services.

Sponsoring Entities:

Community Council, Telehealth Subcommittee, and the Nebraska Association of

Health Systems and Hospitals

Goals and Objectives:

To have insurance companies in Nebraska include telemedicine patient encounters as reimbursable services.

Justification / Rationale:

Currently no private insurers in Nebraska reimburse providers for patient encounters done via telecommunications. Because the same services would be reimbursed if done face-to-face, the current policy provides a great disincentive for providers to engage in telemedicine and for health systems to expand telemedicine programs to underserved areas of the state. It is also threatening the long-term sustainability of the telehealth systems in the state which are currently operating under grant funding. Insurance companies in several other states, including Kansas and Arizona, are reimbursing providers for telemedicine patient encounters.

Approaching the legislature to mandate telemedicine reimbursement was considered. However, it was decided that the best course of action at this time is to work with individual insurance companies.

Work Plan: Members of the Community Council, the telehealth subcommittee, and the Nebraska

Association of Hospitals and Health systems will begin by approaching individual

insurance companies.

Required Resources:

No additional resources are required from the State at this time.

Estimated Cost: No additional resources are required at this time.

Develop a coordinated plan for addressing the information technology needs of Nebraska's rural communities, including developing a database of information technology development resources; performing a gap analysis of additional, needed resources; and developing strategies for focusing and addressing rural community needs.

Sponsoring Entities:

NITC staff, Community Council, NIDCAC

Goals and Objectives:

- To develop a database of information technology resources which would be available through the NITC Clearinghouse.
- To perform a gap analysis to determine if additional resources are needed.
- To develop strategies for addressing the IT needs of rural communities and prepare recommendations for the NITC.

Justification / Rationale:

In order to prosper in the increasingly competitive global economy, rural communities must be prepared to fully participate in the Information Age. Currently there are a number of IT development programs in the state, ranging from introductory Internet training to network certification training programs. There is, however, no coordinated plan for addressing the broad spectrum of IT training and development needs in rural communities.

Work Plan:

| Action | Timeline |
|--|-----------------|
| Identify key stakeholders. | February 2000 |
| Gather information on programs and resources available and | March 2000 |
| incorporate this information into the NITC clearinghouse. | |
| Form a subcommittee to work on this issue. | March 2000 |
| Perform a gap analysis. | April 2000 |
| Develop strategies and prepare recommendations for the | April -May 2000 |
| NITC. | |

Required Resources:

Staff time and resources, and possibly reimbursement of travel expenses of subcommittee members.

Estimated Cost:

No additional costs are anticipated at this time.

Review and/or establish training curriculum for coursework required to develop expertise in network design, LAN management, systems support, application development, or other educational requirements necessary to develop these strategies at the high school, community college, or college and university systems.

Sponsoring Entities:

NITC staff, Community Council, Education Council, and Nebraska Intergovernmental Data Communications Advisory Council (NIDCAC)

Goals and Objectives:

To ensure that educational institutions are providing appropriate education and training courses at early and appropriate opportunities.

To create an educated work force sufficient to implement state IT objectives and initiatives.

To engage and encourage youth at the earliest opportunity, and to provide employment opportunities.

To recognize certification standards employed in the private sector by providing appropriate educational course work to allow students to become certified.

Justification / Rationale:

According to the U.S. Department of Commerce report, *The Emerging Digital Economy II*, almost half of the U.S. workforce will be employed by industries that are either major producers or intensive users of information technology. The digital economy has increased demand for IT workers, created new IT occupations, changed skill requirements for some non-IT occupations, and raised minimum skill requirements for many other jobs. If Nebraska is to prosper in the emerging digital age; our workforce must become fluent in the use of information technology.

Work Plan:

| Actions | Timeline |
|--|----------------|
| Form a subcommittee to work on this issue. | Month 1 |
| Identify key stakeholders. | Month 2 |
| Identify existing educational programs and resources and incorporate this information into the NITC clearinghouse. | Months 2 and 3 |
| Perform a gap analysis. | Month 4 |
| Develop strategies and prepare recommendations for the NITC. | Months 5 and 6 |

Required Resources:

NITC staff time and resources, reimbursement of travel expenses for subcommittee members and other meeting expenses, time of subcommittee members

Estimated Cost:

\$1,000 for travel and meeting expenses

Develop, within the NITC Web site, a clearinghouse service to provide convenient access to information about information technology.

Sponsoring Entities:

NITC Staff, Community Council, Education Council, State Government Council, Technical Panel

Goals and Objectives:

The clearinghouse service will:

- Provide an interactive, customer-friendly interface;
- Compliment existing database and information services; and
- Maintain a centralized presentation while employing decentralized data acquisition and maintenance strategies.

Suggested content elements include:

- Project proposals, NITC reviews and recommendations, and Technical Panel reviews
- Project status reports and reviews
- Technical standards and guidelines and related Web resources
- Technical referral and assistance database
- State infrastructure inventory
- Information technology funding resources
- IT training and education resources
- Links to appropriate databases, organizations and sites, reports, publications, and calendars

Justification / Rationale:

"The Legislature finds that... a clearinghouse should be formed for technical support and best practices information...." Neb. Rev. Stat. § 86-1502(1)(c).

"The commission shall... [c]reate a technology information clearinghouse to identify and share best practices and new developments, as well as identify existing problems and deficiencies..." Neb. Rev. Stat. § 86-1506(2)

Work Plan:

| Actions | Timeline |
|--|--------------------|
| Develop preliminary site and contextual outline; organize and | February 1, 2000 |
| establish links to appropriate informational websites; and | |
| establish editorial procedure for maintaining site | |
| Work with NOL, DOC and University of Nebraska Computing | June 30, 2000 |
| to develop specific database applications (such as the Technical | |
| Referral and Assistance Database). | |
| Work with Councils adding reference links and appropriate | Begins February |
| links to external Web sites maintained by other institutions and | 2000 and continues |
| Nebraska communities of interest | |

Required Resources:

Staff to provide support to coordinate meetings, information, and actions. Graphic designer to assist with site design. Programming expertise to develop specialty databases and web applications.

Estimated Cost:

Database and Web application development to be priced on a per project basis. It is anticipated that some services will be donated by public agencies.

Develop a Web-accessible database of public access sites in Nebraska.

Sponsoring Entities:

Community Council of the NITC, the Nebraska Library Commission, and Nebraska Online

Goals and Objectives:

- To develop a Web-accessible database of public access sites in Nebraska.
- To determine how many communities in Nebraska have public access terminals available, where this access is provided, and if access is provided at times convenient for users (daytime, evening, and weekend hours).

Justification / Rationale:

As more and more information and services--including those of local, state, and federal governments--are being made available on the Internet, there is growing concern that the "information have nots" will be disadvantaged. The recently released report, Falling through the Net: Defining the Digital Divide, found that, regardless of income level, those living in rural areas were less likely to own a computer or have access to the Internet at home. Blacks and Hispanics were also less likely to have access to the Internet at home than Whites. The report found that those without Internet access at home, work, or school, were using public access sites to bridge the digital divide. A Web-accessible database will make it easier for Nebraskans to find public access sites. The data collected will also allow policy makers and government officials to make better-informed decisions on the issue of public access. Additionally, the information will be valuable as supporting documentation for a number of grant programs which focus on bridging the digital divide.

Work Plan:

Month 1 - Meet with Nebraska Online about building a Web-accessible Database

Month 1 - Examine existing data from Nebraska Library Commission

Month 1 - Develop a survey instrument

Month 2 - Develop the database

Month 2 - Compile calling list

Month 2 - Conduct phone interviews

Month 3 - Analyze data

Month 3 - Prepare and publish report

Months 4-5 - Make recommendations based on findings

Months 5-12 - Follow up on recommendations if appropriate

Required **Resources:**

An intern, use of a computer, data from the Nebraska Library Commission, and a phone, services from Nebraska Online

Estimated Cost:

\$2460 from the Community Technology Fund has been approved.

Develop guidelines for core local government, multi-purpose geospatial datasets, and model inter-local agreements for the cooperative development, maintenance, and funding of geographic information systems core data.

Sponsoring Entities:

NITC Technical Panel, Community Council, GIS Steering Committee, Nebraska Intergovernmental Data Communications Advisory Council (NIDCAC)

Goals and Objectives:

- Facilitate the utilization of geographic information systems technology by assisting local governments and regional public entities to work cooperatively to develop commonly needed geospatial databases (land ownership, common address files, transportation networks, etc.).
- Increase the ability to share and integrate data across agencies and levels of government through the cooperative development and maintenance of core geospatial databases.
- Increase the return on public investments in local government data development by reducing the costs associated with the duplicate development and maintenance of similar geospatial databases by multiple agencies.

Justification / Rationale:

Local governments maintain and/or use numerous databases for which location or place is a critical database component. This locational data is used in a wide variety of applications (emergency response, transportation planning and maintenance, taxation, schools, utilities, property ownership, public health and safety, zoning, etc.) Because of this wide use of locational information, geographic information systems (GIS) technology holds considerable potential for local government applications.

The utilization of this powerful information technology by communities and local governments in Nebraska has been hampered by the necessity of making considerable up-front public investments in the development of a local framework geospatial data infrastructure. This data infrastructure consists of core geospatial databases such as property parcels, transportation networks, surface feature maps, addresses, and public utilities networks. The costs of the initial public investment in the development of these core databases is offset by their multiple applications and long-term usability, if they are developed and maintained correctly.

Because multiple agencies, at various levels of government, need these same core geospatial databases, there exists considerable potential for the cooperative development and sharing of these databases. Cooperative development offers a promising approach for overcoming this database development hurdle. The development of database guidelines and model inter-local agreements would facilitate these cooperative geospatial database efforts.

Work Plan:

| Actions | Timeline |
|--|-------------------------------|
| NITC Community Council and GIS Steering Committee define a shared work plan for respective organizational roles and responsibilities for cooperative effort to address action proposal. | Mar. 2000 |
| Advisory Committee of GIS Steering Committee develops draft guidelines for core local government, multipurpose geospatial datasets. | present thru Dec. 2000 |
| Joint committee established to outline the opportunities for and to develop model inter-local agreements for cooperative data development and maintenance. | May 2000 |
| Joint committee identifies the needs and opportunities for the cooperative development of core local government datasets, researches existing inter-local agreements, and develops model inter-local agreements for the development and maintenance of core geospatial datasets. | May 2000 thru Dec. 2000 |
| NITC Community Council assists GIS Steering Committee in soliciting local government feedback on draft guidelines for core local government datasets. | present thru Dec.2000 |
| NITC Community Council and the GIS Steering Committee publishes report outlining the opportunities for cooperative local government data development and model language for inter-local agreements. | Jan. 2001 |
| GIS Steering Committee publishes guidelines for core local government geospatial databases. | present thru Dec. 2000 |

Required Resources:

Developing guidelines for core local government geospatial databases and models to facilitate cooperative database development will require considerable time and effort of the Nebraska GIS Steering Committee's Coordinator, the NITC Community Information Technology Manager, and committee members representing a cross section of government agencies.

Estimated Cost:

No direct additional cost for developing these guidelines and inter-local agreement models is anticipated. It is currently anticipated that these projects can be completed by interagency efforts to pool available agency staff resources.

Evaluate existing funding sources and incorporate enterprise principles that address life-cycle funding needs.

Sponsoring Entities:

NITC staff, Community Council, Education Council, and State Government Council

Goals and Objectives:

- Compile a comprehensive list of funding sources for information technology in Nebraska
- Review any proposed legislative proposals for funding specific information technology initiatives
- Recommend changes where appropriate to adopt enterprise funding principles.

Justification / Rationale:

Traditional funding sources for information technology contribute to poor decisions and ineffective development of the state's information technology infrastructure for three reasons:

- State appropriations for IT are tied to programs within agencies.
- Project justification depends on direct benefits to the sponsoring agency's mission.
- The two-year budget cycle forces a single decision on each project, when multiple decision points are needed.

One consequence of traditional funding sources is the loss of an enterprise perspective. This means that decisions tend to lack a long-term view, focus on isolated requirements, and diminish broader infrastructure needs. In addition, there is often inadequate attention to infrastructure requirements that cross agency and programmatic boundaries. Traditional funding sources discourage a long-range view.

An enterprise strategy for funding should strive for collaboration, proactive treatment of issues that cross organizational and political boundaries, and elimination of duplicative and incompatible activities.

Work Plan:

| Actions | Timeline |
|--|----------------|
| Compile and validate list of funding sources (examples: School | March 2000 |
| Technology Fund, Information Technology Infrastructure | |
| Fund, etc.) and proposed legislative IT funding initiatives | |
| (examples: funding proposals for statewide wireless | |
| communications infrastructure, Libraries for the 21 st Century, | |
| etc.) | |
| Evaluate which funding sources should reinforce enterprise | September 2000 |
| principles | |
| Recommend options for adopting enterprise principles | September 2000 |
| Submit recommendations to the NITC, Governor and | October 2000 |
| Legislature | |

Required Resources:

Staff time.

Estimated Cost:

None

Action:

Conduct a study to determine the need for and merits of establishing a funding mechanism dedicated to facilitating collaborative intergovernmental efforts to develop priority statewide geospatial (geographically referenced) databases.

Sponsoring Entity: Nebraska GIS Steering Committee

Goals and Objectives:

- Encourage and facilitate interagency, intergovernmental collaboration in the development and maintenance of core geospatial reference databases.
- Enhance data sharing and public policy decision-making through the implementation of data standards that facilitate interagency, intergovernmental data integration.
- Encourage the reallocation of existing resources from agency-specific database development efforts to collaborative, standardized interagency efforts.
- Gather background information on the specific need for and merits of establishing a funding mechanism to facilitate collaborative geospatial database development efforts.

Justification / Rationale:

It is widely accepted, that the development and maintenance of many core geospatial databases is most efficiently achieved through the cooperative efforts of multiple agencies, frequently at different levels of government (state, local and federal). In many cases, current institutional structures create barriers to information technology collaboration. The establishment of a funding mechanism dedicated to collaborative geospatial database development has been proposed as one means to help overcome these institutional barriers and to facilitate this collaboration. The availability of at least a moderate amount of funding dedicated to collaborative database development could provide an incentive to stimulate interagency, intergovernmental coordination. Such dedicated funding could provide both the seed funding and a mechanism for implementing large, statewide, cooperative database development efforts by pooling additional resources from multiple partner agencies. Oversight of a collaborative geospatial database development fund, by an intergovernmental coordinating body, could also provide a workable mechanism for implementing database development priorities which have been established through coordinated intergovernmental processes.

Any initiative to establish a new funding mechanism must address the need for the funding and the merits or benefits to be gained from the funding. To provide this background information, this study will seek to outline:

- 1. the cross-section of need for these core geospatial databases,
- 2. the estimated public investment needed to develop and maintain these core databases, and
- 3. how a collaborative funding mechanism might facilitate their cooperative development.

This study will also examine the institutional issues that could contribute to the establishment of an effective collaborative database development fund. Among the institutional considerations currently proposed are the following:

- oversight by a coordinating body knowledgeable about geospatial data needs,
- adherence to established geospatial data standards,
- recognition of the need for periodic maintenance of these dynamic databases,
- commitment to data sharing among public institutions,
- provision of a sufficient level of funding to enable multi-year development projects, and
- coordination with the Nebraska Information Technology Commission.

Relationship to NITC Goals or sector priorities

This recommendation is consistent with the NITC goal #3, which calls for a broad strategy and objectives for developing and sustaining information technology development in Nebraska, **including long-range funding strategies**. The establishment of a collaborative database development funding mechanism would be a proactive step to overcome the institutional barriers that hinder intergovernmental efforts. Both the Community and State Government sector priorities highlight the importance of encouraging collaboration as a means to facilitating IT development and innovation. A select subset of geospatial databases are key pieces of Nebraska's information technology infrastructure and their coordinated development will do much to support the rapid deployment and use of spatially-related information technology throughout Nebraska and will encourage the use of geospatial-related technologies in sectors such as education, health care, economic development and many other fields.

Develop policies and procedures for consolidating intergovernmenetal services on central servers, including digital certificates, verification, authorization, e-mail services, and other appropriate database applications.

Sponsoring Entities:

Community Council, Nebraska Intergovernmental Data Communications Advisory Council (NIDCAC)

Goals and Objectives:

Goal:

To aggregate demand for common services on one or more central servers in order to take advantage of economies of scale.

Objectives:

- To establish or promote use of central mail servers for public agencies.
- To aggregate low bandwidth requirements of single agencies to share cost of highspeed communications.
- To establish central management and diagnostic tools for remote systems.
- To promote applications that require digital authentication, and establish central servers to create pubic sector digital certificates.
- To establish common digital certificate management system to allow local agencies to manage user Ids locally.

Justification / Rationale:

Agencies utilizing automated services generally demand similar services. Systems' overhead to replicate these services in each jurisdiction is costly to create, manage, and maintain. Promoting the use of one or more central servers to provide electronic mail, application security, or similar services would reduce overhead and maintenance costs.